



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,735	12/16/2004	Thomas Busse	884A.0063.U1(US)	1332

29683 7590 08/02/2006

HARRINGTON & SMITH, LLP  
4 RESEARCH DRIVE  
SHELTON, CT 06484-6212

EXAMINER

LU, ZHIYU

ART UNIT	PAPER NUMBER
----------	--------------

2618

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Claim Objections*

1. Claims 2-16 and 19-20 are objected to because of the following informalities:

In claims 2-16 and 19-20, replace "A" with [The] in line 1s, to correct antecedent basis errors.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright (US Patent#6912605).

Regarding claim 1, Wright anticipates a touch-entry user input device (52 of Fig. 2) having a first mode (sleep mode, column 5 lines 31-34) in which the device does not perform a first function and a second mode (awake) in which the device does perform the first function wherein the device has means for user input and is arranged, when in the first mode, to initiate exit from the first mode and entry into the second mode at the initiation of a user input (column 5 lines 40-50).

Art Unit: 2618

Regarding claim 18, Wright anticipates a method of transferring a user input device (52 of Fig. 2), in response to user input, from a first mode (sleep mode, column 5 lines 31-34) in which the device is not capable of performing a first function to a second mode (awake) in which the device is capable of performing a first function where there is an inherent delay in the transfer process, comprising the steps of detecting the initiation of user input and then immediately initiating the transfer (column 5 lines 40-50).

Regarding claim 2, Wright anticipates the limitation of claim 1.

Wright also anticipates comprising detection means (inherent) for detecting the initiation of a user input and control means (controller) for initiating the exit from the first mode (column 5 lines 40-41).

Regarding claim 3, Wright anticipates the limitation of claim 1.

Wright also anticipates the first mode is an energy conservation mode (sleep mode, column 5 lines 31-34).

Regarding claim 4, Wright anticipates the limitation of claim 1.

Wright also anticipates the second mode is a low power radio communication mode (column 5 lines 43-50).

Regarding claims 5 and 19, Wright anticipates the limitations of claims 1 and 18.

Art Unit: 2618

Wright also anticipates the means for user input comprises a user depressible key (column 5 lines 40-41).

Regarding claims 6 and 20, Wright anticipates the limitations of claims 5 and 19.

Wright also anticipates comprising discrimination means (inherent) for discriminating an instantaneous depression of the key from a continuous depression of the key (keyboard inherent recognizes a continuous depression of a key as multiple inputs).

Regarding claim 7, Wright anticipates the limitation of claim 1.

Wright also anticipates the initiation of the exit from the first mode occurs before discrimination of the user input (inherent in column 5 lines 40-41, where the keystroke is only to awake the wireless keyboard but not inputting).

Regarding claim 8, Wright anticipates the limitation of claim 1.

Wright also anticipates the entry into the second mode occurs before discrimination of the user input (inherent in column 5 lines 40-50, where key input recognition happens after the wireless keyboard entered active/awake mode).

Regarding claim 9, Wright anticipates the limitation of claim 1.

Wright also anticipates further comprising low power radio transceiver means (inherent in wireless keyboard) and wherein the exit from the first mode is initiated by sending a message using the low power radio transceiver means (column 5 lines 40-50).

Art Unit: 2618

Regarding claim 10, Wright anticipates the limitation of claim 1.

Wright also anticipates further comprising low power radio transceiver means wherein the first function comprises transmitting data using the low power radio transceiver means (column 5 lines 40-50).

Regarding claim 16, Wright anticipates the limitation of claim 1.

Wright further anticipates the time taken to exit from the first mode and enter into the second mode is less than the time taken to discriminate a user input (inherent).

Wright discloses that keystroke delay is approximately 30-100ms (column 6 lines 17-25) and it takes 1ms with 100mA consumption to transmit new key state information (column 5 lines 40-50). Wright also discloses that waking up the keyboard consumes only several mA (column 5 lines 41-44), which means the time used to wake up the keyboard is much less than the time used in keystroke discriminating process.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2618

3. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright (US Patent#6912605) in view of Kammer et al. (US Patent#6950645).

Regarding claim 11, Wright teaches the limitation of claim 1.

But, Wright does not expressly disclose operating as a Slave in a Bluetooth piconet.

Kammer et al. teach a wireless keyboard operating as a slave in Bluetooth piconet (column 6 line 62 to column 7 line 24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate operating as a slave in Bluetooth piconet taught by Kammer et al. into the touch-entry user input device of Wright, in order to become part of personal area network.

Regarding claim 12, Wright teaches the limitation of claim 1.

But, Wright does not expressly disclose operating in accordance with the Bluetooth Standard wherein the first mode is the Sniff Mode or Park Mode.

Kammer et al. teach operating in accordance with the Bluetooth Standard wherein the first mode is the Sniff Mode or Park Mode (column 8 lines 4-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate operating in Bluetooth Standard wherein the first mode is the Sniff Mode or Park Mode taught by Kammer et al. into the touch-entry user input device of Wright, in order to have power saving mode.

Regarding claim 13, Wright and Kammer et al. teach the limitation of claim 12.

Art Unit: 2618

Kammer et al. further teach the exit from the Sniff Mode is initiated by transmitting a LMP\_unsniff\_req message (inherent in column 8 lines 4-19).

Regarding claim 14, Wright and Kammer et al. teach the limitation of claim 12.

Kammer et al. further teach the exit from the Park Mode is initiated by transmitting a LMP\_accepted message (inherent in column 8 lines 4-19).

Regarding claim 15, Wright teaches the limitation of claim 1.

But, Wright does not expressly disclose operating in accordance with the Bluetooth Standard wherein the second mode is the Active Mode.

Kammer et al. teach having wireless devices operating in accordance with the Bluetooth Standard wherein the second mode is the Active Mode (discoverable mode, column 7 lines 9-19, column 12 line 59 to column 13 line 35).

### *Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zhiyu Lu  
June 27, 2006



**Matthew D. Anderson**  
Supervisory Patent Examiner